

IN THE DRAWINGS

Figures 9 and 10 have been objected to because they should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. The drawings are also objected to as failing to comply with 37 C.F.R. § 1.84(p) (5) because they include the reference character “4S” shown in Figure 1 is not mentioned in the description. The Examiner believes the reference number should be “42S”.

Applicants respectfully submit herewith under separate cover three (3) sheets of replacement drawings to substitute for the originally filed drawing. Figures 9 and 10 have been amended to include the legend “Prior Art”, as suggested by the Examiner in the Office Action. Figure 1 has been corrected so that the reference number 4S is now designated as reference number “42S”. In addition, Figure 5 has been amended to correct 1N to “1Ni”. Accordingly, Applicants amend Figures 1, 9 and 10 to overcome the objections.

REMARKS**Summary of the Office Action**

The Title has been objected to because it is deemed to be non-descriptive.

Claims 1-6 and 9-11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Published Patent Application No. 2002-0067111 to Shibata ("Shibata").

Claims 7-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shibata in view of U.S. Patent No. 6,262,522 to Osamura ("Osamura").

The Abstract is objected to because of certain terms used in the abstract and it exceeds 150 words.

Figures 9 and 10 have been objected to because they should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. The drawings are also objected to as failing to comply with 37 C.F.R. § 1.84(p) (5) because they include the reference character "4S" shown in Figure 1 is not mentioned in the description. The Examiner believes the reference number should be "42S".

Summary of the Response to the Office Action

The Title has been changed. Claims 1 and 5-15 are presently pending for further consideration. Claim 1 has been amended to narrow the range of Ru, Rh, and Ni. Claims 2-4 have been cancelled. Claim 5 has been amended to change its dependency as a result of cancelled claims 2-4. Claim 9 has been amended to clarify that the range of 8 mass% to 20 mass% refers only to Ru and to provide a range of mass% for Ni. Claim 11 has been amended to put it into independent form. New claims 12-15 have been added. The drawings have been

amended to overcome the objections and to correct a minor error not noted in the Office Action.

The Abstract has been amended to overcome the objection.

Rejection Under 35 U.S.C. § 102(b)

Claims 1-6 and 9-11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Shibata. Applicants respectfully traverse the rejection.

The Office Action asserts that Shibata discloses in paragraph [0092] a precious metal member containing Ir as a main component, 0.3 mass% to 43 mass% Rh, 5.2 mass% to 41 mass% of Ru, and 0.4 mass% to 19 mass% of Ni. In reality, the range of mass% of Rh in Shibata is meaningless in that it is listed as 50 weight % or less. The material in paragraph [0092] of Shibata is called an “Ir alloy.” If Rh were greater than 50 mass% of the material, it would no longer be an Ir alloy, but would instead be a Rh alloy. Thus, Shibata does not disclose with sufficient specificity the range of mass% of Rh in claim 1 (0.3 mass% to 43 mass%), which is based on empirical evidence and not the sweeping assertion of Shibata, which has no apparent basis.

According to MPEP § 2131.03, “[i]f the claims are directed to a narrow range, >and< the reference teaches a broad range, ** depending on the other facts of the case, it may be reasonable to conclude that the narrow range is not disclosed with ‘sufficient specificity’ to constitute an anticipation of the claims. ... Any evidence of unexpected results within the narrow range may also render the claims unobvious.” The range of weight % of Ni in Shibata is 40 or less, while the range recited in claim 1 is 0.4 mass% to 19 mass% of Ni. 40 weight% is not much below the maximum (50 weight%) of Ni that would be allowed before the material would become a Ni

compound rather than a Ir alloy. Shibata discloses no particular advantage for the range of Ni (or Rh and Ru) disclosed, while the range disclosed in claim 1 is based on empirical evidence used to minimize abrasion of the alloy, as shown in Figures 4-6 of the specification of the present invention.

Similarly, Shibata discloses no particular advantage for the ranges of weight% of Rh and Ru, while Figures 4-6 of the specification of the present invention disclose empirical evidence for the advantages of keeping those materials within the claimed ranges to minimize abrasion. Thus, Applicants respectfully assert that the ranges of weight% of materials disclosed in Shibata are not sufficiently specific to constitute an anticipation of claim 1.

In addition, Shibata does not disclose or suggest the mass% of each of Rh and Ru being larger than the mass% of Ni, as recited in claim 1.

For at least the above reasons, Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. § 102(b) as being anticipated by Shibata be withdrawn.

For similar reasons to those recited above with respect to claim 1, Applicants respectfully assert that the ranges of weight% of materials disclosed in Shibata are not sufficiently specific to constitute an anticipation of claim 9. In addition, Shibata does not disclose or suggest the mass% of Ru being larger than the mass% of Ni as recited in claim 9.

Because the quantities of metals in the Ir alloy recited in claim 9 are based on empirical evidence of minimization of abrasion, and there is no support for the quantities of metals disclosed in paragraph [0092] of Shibata, Applicants respectfully maintain that the weight% of metals in the alloy disclosed in Shibata are not sufficiently specific to constitute an anticipation

of claim 9. Therefore, Applicants respectfully request that the rejection of claim 9 under 35 U.S.C. § 102(b) as being anticipated by Shibata be withdrawn.

As with claims 1 and 9, Applicants respectfully assert that the ranges of weight% of materials disclosed in Shibata are not sufficiently specific to constitute an anticipation of claim 11. In addition, Shibata does not disclose or suggest a relation of the mass% of Rh and the mass% of Ru as recited in claim 11.

For at least the above reasons, Applicants respectfully assert that independent claims 1, 9, and 11, and their dependent claims 5-8, 10, and 12-15, are in condition for allowance.

Rejection Under 35 U.S.C. § 103(a)

Claims 7-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shibata in view of Osamura. Osamura does not overcome the deficiencies of Shibata because, like Shibata, it does not disclose the features of claims 7 and 8 in sufficient specificity to anticipate the claims or make them obvious.

For at least this additional reason, Applicants respectfully request that the rejection of claims 7 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Shibata in view of Osamura be withdrawn. Applicants further assert that claims 7 and 8 are in condition for allowance.

CONCLUSION

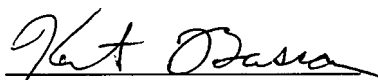
It is respectfully submitted that all claims are now in condition for allowance, early notice of which would be appreciated. Should the Examiner disagree, Applicants respectfully request a telephonic or in-person interview with the undersigned attorney to discuss any remaining issues and to expedite the eventual allowance of the claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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Dated: April 25, 2007

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